

[0269] 304: BACKLIGHT
 [0270] 305: LIQUID CRYSTAL PANEL
 [0271] 306: TRANSPARENT ELECTRODE
 [0272] 320: PIEZOELECTRIC ELEMENT
 [0273] 401: DISPLAY DEVICE
 [0274] 420: TRANSPARENT SPEAKER
 [0275] 421: TRANSPARENT ELECTRODE
 [0276] 501: DISPLAY DEVICE
 [0277] 590: HOUSING
 [0278] 601: DISPLAY DEVICE
 [0279] 620: VIBRATOR
 [0280] 621, 622: CONDUCTOR LAYER

1. A vibrating device comprising:
 a touch sensor;
 at least one vibrator configured to vibrate in response to a drive signal;
 a drive circuit configured to generate the drive signal; and
 a vibrating body at least partially in contact with the vibrator and including a conductor that is connected to a reference potential of the touch sensor and that is disposed between the touch sensor and the drive circuit.
2. The vibrating device according to claim 1, wherein the drive circuit is configured to generate the drive signal when the touch sensor detects a touch operation.
3. The vibrating device according to claim 2, wherein the vibrating body is fixed to the at least one vibrator, such that the vibrating body is convexly curved from the at least one vibrator to produce bending stress of the vibrating body.
4. The vibrating device according to claim 3, wherein the vibrating body is curved in a direction orthogonal to a principal surface of the at least one vibrator.
5. The vibrating device according to claim 2, wherein the vibrating body has a surface that is flat when the vibrating body is fixed to the at least one vibrator.
6. The vibrating device according to claim 1, wherein the touch sensor, the vibrating body and the at least one vibrator are stacked with the vibrating body disposed between the touch sensor and the at least one vibrator.
6. The vibrating device according to claim 1, further comprising a touch panel that includes the touch sensor and that is attached to the vibrating body.
7. The vibrating device according to claim 1, wherein the at least one vibrator is a chiral polymer.
8. The vibrating device according to claim 7, wherein the chiral polymer is polylactic acid.
9. The vibrating device according to claim 8, wherein the polylactic acid is poly-L-lactic acid.
10. The vibrating device according to claim 1, wherein the touch sensor is disposed directly on the conductor.

11. The vibrating device according to claim 1, wherein the conductor has a larger surface area than the touch sensor such that the conductor completely overlaps the touch sensor.

11. The vibrating device according to claim 1, wherein the vibrating body only includes the conductor.

12. The vibrating device according to claim 1, wherein the vibrating body further comprises a transparent plate with the at least one vibrator coupled to the transparent plate and the conductor comprises a transparent electrode facing the touch sensor.

13. The vibrating device according to claim 1, wherein the at least one vibrator comprises a pair of vibrators coupled to the vibrating body opposite the touch sensor and the drive circuit is coupled to the vibrating body between the pair of vibrators.

15. A display device comprising:

- a sensor;
- a drive circuit configured to generate a drive signal;
- at least one vibrator configured to vibrate in response to the drive signal;
- a diaphragm including a conductor and configured to vibrate in a planar direction when the drive signal is applied to the at least one vibrator; and
- a display unit coupled to the at least one vibrator, wherein the diaphragm is connected to a reference potential of the sensor and is disposed between the sensor and the drive circuit.

16. The display device according to claim 15, wherein an entirety of the sensor is overlapped by the conductor when seen from a plan view of the display unit.

17. The display device according to claim 15, wherein the diaphragm further includes a transparent plate coupled to the at least one vibrator and the conductor comprises a transparent electrode facing the sensor.

18. The display device according to claim 15, wherein the sensor, the diaphragm, the at least one vibrator and the display unit are stacked with the diaphragm disposed between the sensor and the at least one vibrator.

19. The display device according to claim 15, wherein the drive circuit is mounted adjacent to a side of the display unit and between the at least one vibrator and a bottom surface of the display device that is opposite the sensor.

20. The display device according to claim 15, wherein the diaphragm is fixed to the at least one vibrator, such that the diaphragm is convexly curved from the at least one vibrator and towards the sensor.

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